LAVALDOC
LAVALDOC

2

Profile & Deck

Swan Hunter & W.R.

Nos. 1329 - 31 - 3 - 5 - 7.
& 1345 - 7 & 1282 : 90.
9 - 9 - 27.

I. C. 30/11/27
" 7 . 3 . 28. for 1345 . 7 . 1282.
" 16 - 5 - 28 " 1290.
" 5 - 9 - 28 " 1365 - 7.

1329. "Cartierdoc". * * *
1331. "Lavaldoc".
1333. "Mondoc".
1335. "Soreldoc"
1337. "Troisdoc"
1345 "Novadoc" W/S 953
1347. "Newbrundoc"
1282. "Tyneville now "JOHN J. BOLAND JUN."
1290 "Scott Misener"
1365 Delaware
1367. Cheyenne.
1369. John A. Mc Keller
1371. C H Houzon
1373. Ralph Gilchrist
1375. Joseph F Burke

PLANS TRANSFERRED
TO SISTER VESSEL
SORELDOC

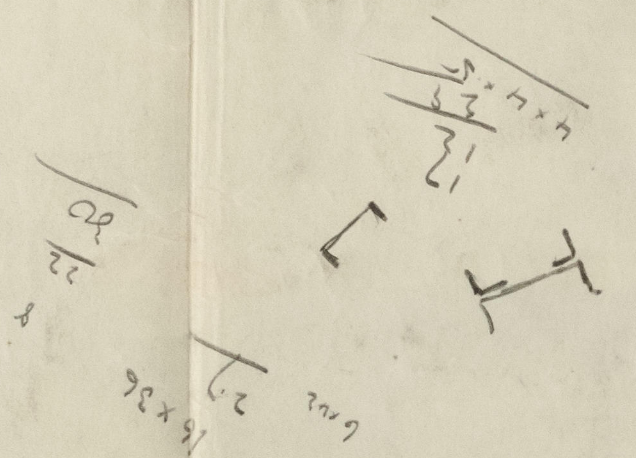
004512-004519-0198

Profile & Decks

Susan Hunter & WR

1329 - 31 - 33 - 35.

Bag


4 × 4 × .5
12
12
2.9
6 × 4 2
2.7
15 × 36
8
22
20

004512-00519-0198

N°s 1329-31-33-35

LAKE STEAMERS

PROFILE & DECKS

TO CLASS B.S* FOR SERVICE ON GREAT LAKES & RIVER

ST. LAWRENCE

SCALE 1/8" = 1 F.T

SEP 1.27

GLASGOW

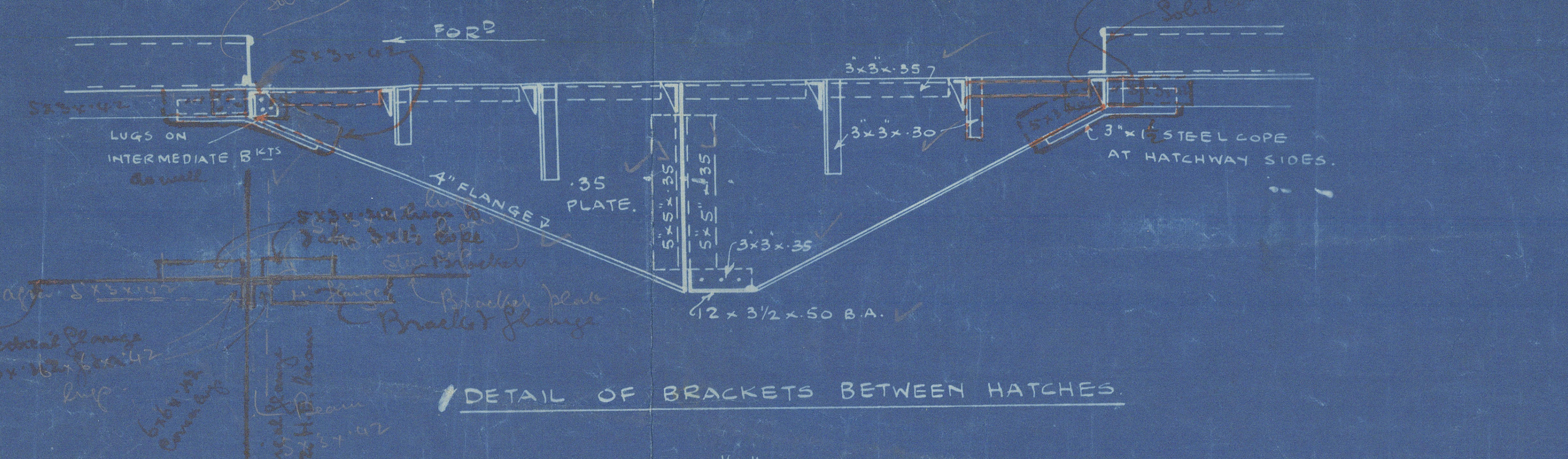
Approved JLH 9.9.27
See Letter

OFFICERS MESS.
ENGINE CASING.
COAL TRUNK
FUNNEL CASING.
RAISED QUARTER DK.
PILLARING ARRANGEMENT TO BE APPROVED
10×3½×·46 B.A.
PLATING OVER PEAK ·30. ELSEWHERE ·25
W.T. FLAT
18" STRINGER.
BEAMS 6½×3×·38
KNEES ON EVERY FRAME
·30 WASH PLATE
REV. FRAME 4"×4"×·50
REVERSE 4×4×·50
BUNKER END STIFFENED.
BUNKER BHD AT SIDES.
BOILER ROOM.
ENGINE ROOM
A. PEAK
PILLARS & SUPPORTS IN E & B SPACE TO BE APPROVED
W.T.B.
WELL
WATER BALLAST.
For Scantlings See plan to be submitted
FOR ARRGT ON Nos 1343-7 SEE FLY
18" STRINGER IN LINE WITH UPPER DK
KNEES ON EVERY FRAME
BKT.
REV. FRAME 6×6×·70
DETAIL OF BREAK. TO BE SUBMITTED.
·35
TOP OF 15"×4"×4"×48/62 CH. STRGR. (SEE SECTION)
BULKHEAD. Non W.T.
PLATING ·26 Lower part ·32
VERT STIFR TANK TOP TO DK 6×3×·38 B.A.
3'9" SPACING
WEBS. BHD FRAMES 3½×3½×·38
BHD ANGLE TO DK 3×3×·36
" " " T.TOP 3×3×·42.
NON W.T. BHD 8'0" UP.
REV. FRAME 6×6×·70 O.A. 6×3×·36 B.A. FRM.
TANK TOP PLATING FLUSH
WATER 6"×3"×·32 B.A. 24" APART BALLAST
WATER BALLAST
STRINGER. HEEL OF 12"×3½"×·59 B.A. & 6"×3"×·50 O.A.
Large knee as in Web beams
WHEEL HOUSE.
CAPTAIN'S HOUSE.
FORECASTLE DECK.
CREW ACCOMMODATION.
CHAIN LOCKER
STORE.
PILLARS ARRGD TO SUIT ACCOM.
UPPER DECK
STRINGER.
FORE PEAK
WATER BALLAST.
STRINGER.
PLAN TO BE SUBMITTED.
0
5
10
15
20
25
30
35
40
45
50
55
60
65
70
75
80
85
90
95
100
105
110
115
120
125
130
FRAMES 24" APART
FRAMES 20" APART
FRAMES 18" APART.
3/5 LENGTH
1/2 LENGTH
W.T. CENTRE DIVISION THRO' Nos 1 & 2 DOUBLE BOTTOM TANKS.
X Reverse.
Reverse
ARRANGEMENT OF INTERCOSTALS & 1/2 INTERCOSTALS TO BE SUBMITTED.
FRAMES 6"×3"×·36" O.A. TO RAISED QUARTER DK
FRAMES 8×3×36 B.A.
FRAMES 8×3×·42 B.A.
FRAMES 8×3×·36 B.A.
FRAMES 9"×3"×·38 B.A.
Frames 8/8
X Additional Rev. Frames
FRAMES 8"×3"×·36 B.A. WITH 6"×3"×·40 O.A. REV BAR. FORMING 9" GIRDER.
FRAMES 6×3×·36 B.A. TO UPPER DK
FORECASTLE SIDE FRAMES 5"×3"×3. KNEED TO UPPER DK.
UPPER DECK.
RAISED QUARTER DECK
RAISED QR DECK STRINGER PLATE ·4 TO ·36.
DETAIL OF BREAK TO BE SUBMITTED
STRINGER PLATE 84½"×·62 TO ·36 AT ENDS. NO BUTTS TO BE ABREAST HATCHES.
STEEL DK ·25
ENGINE CASING.
COAL SHOOT.
BOILER CASING.
CARGO HATCH
12'·0" × 29'·2"
12" COAMING.
GIRDER
WOOD BEAM.
STRONG BEAM
STEEL DK ·25
12'·9" × 29'·2"
NON W.T. BHD UNDER
CREW ACCOMMODATION.
GIRDER UNDER
STEEL DK ·25
W.T. BHD. (UNDER)
·38 OVER TANKS
CHAIN LOCKER
STORE
UPPER DK
BEAMS 6"×3"×·36 O.A.
THRO' BEAMS 5"×3"×·30 O.A.
Hatch end beams 5×3×·42
1/2 BEAMS 5"×3"×·30 O.A.
STRONG BEAMS 5"×3"×·35" O.A.
1/2 BEAMS AT BKTS 5"×3"×·35 O.A.
BEAMS 5×3×·30 O.A.
7½"×3"×·38 B.A.
7"×3"×·36 B.A.
6½"×3"×·32 B.A.
5½"×3"×·36 B.A.
4"×3"×·30 O.A.

16×6 = 96
70×8 = 560
44×9 = 396
130× = 1052

1.8×·56 = 1.01 × 7.5 = 7.5
2×·56 = 1.12 × 7.5 = 8.4

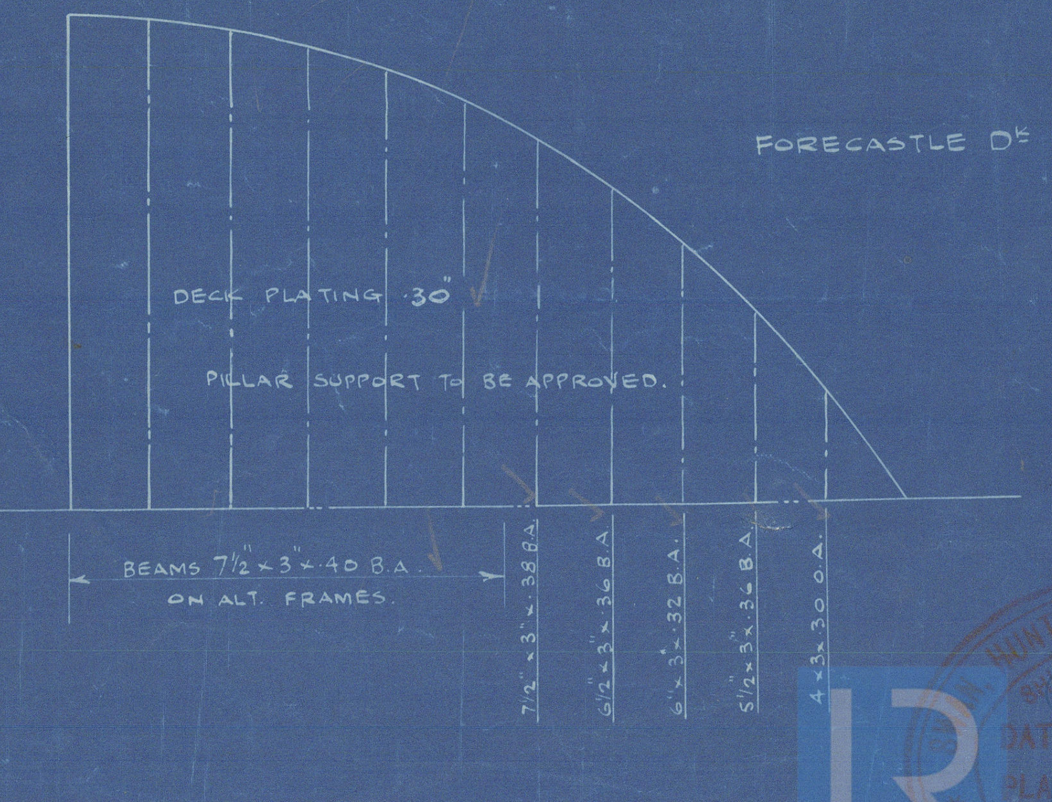
Extra pillars fitted at
frames 2 & 5 at 5-9" to Starbd.
See letter 7-10-27.



FORD
5×3×·42
LUGS ON INTERMEDIATE BKTS
as well
Solid
3"×3"×·35
3"×3"×·30
3"×1½ STEEL COPE AT HATCHWAY SIDES.
4" FLANGE
·35 PLATE.
5"×5"×·35
3"×3"×·35
12×3½×·50 B.A.
Bracket plate
Bracket flange
Fore & aft 5×3×·42
Vertical flange

DETAIL OF BRACKETS BETWEEN HATCHES.

SCALE 1/2" = 1 FOOT.



FORECASTLE DK
DECK PLATING ·30"
PILLAR SUPPORT TO BE APPROVED.
BEAMS 7½"×3"×·40 B.A. ON ALT. FRAMES.
7½"×3"×·38 B.A.
6½"×3"×·36 B.A.
6"×3"×·32 B.A.
5½"×3"×·36 B.A.
4×3×·30 O.A.

HUNTER, & WIGHAM RICHARDSON, LTD.
SHIPBUILDERS & ENGINEERS
DATE 7-9-27
PLAN No 6

004512-004519-0198

1

Midship Section

Swan Hunter & W R.

Nos 1329 - 31 - 3 - 5 - 7.

+ 1345 - 7 + 1282 - 90

9 - 9 - 27

J C. 30/11/27.
" 7 - 3 - 28 for 1345 - 7 + 1282.
" 16 - 5 - 28 " 1290.
" 5 - 9 - 28 " 1365 - 7.

1329 "Cartierdoc" ✠ * ×

1331 "Lavaldoc"

1333 "Mondoc"

1335 "Soreldoc"

1337 Troisdoc.

1345. Movadoc.

1347. Newbrundoc.

1282. "Tyneville now "John J. Boland. Jun."

1290. "Scott Misener"

1365 Delaware

1367. Cheyenne

1369. John A McKellar

1371. C H Houson

1373 Ralph Gilchrist

1375. Joseph P Burke

Bag/

004512 - 004519 - 0208

8 SEP 1927

Approved [illegible] See Letter 9.9.27

Nos 1329-1331-1333-1335 & 1337.

LAKE STEAMERS.

MIDSHIP SECTION.

DIMENSIONS:- 253'-0" B.P. × 43'-4" EXT × 20'-0" MLD.

TO CLASS B.S.* FOR SERVICE ON GREAT LAKES & RIVER ST LAWRENCE.

SCALE 1/2" = 1 FOOT.

$\frac{253 \times 43.33 \times 20 \times .75}{100} = 1642$

$\frac{100 \times 43.33 \times 4 \times .75}{100} \quad 130$

$\frac{35 \times 43.33 \times 4.75 \times .50}{100} \quad 25.9$

$\frac{49 \times 31.0 \times 7.5 \times .375}{100} \quad 41.8$

1839.4

EQUIPMENT.

2 BOWER ANCHORS STOCKLESS EACH 36 CWTS..
1 STREAM " " [illegible] "
210 FTHS. 1 1/16" STUD CHAIN CABLE.
75 " 3 1/2" STEEL STREAM WIRE.
105 " 3 1/2" " WIRE TOWLINE.
2-90 " 6 1/2" HAWSERS.
2-90 " 5" "

Altered see letter 2-12-27

Deck Area 3'-5" FREEBOARD
Required 62.36 □"

Deck area Rule 53 Offered 84.5 × .62 = 52.5 + Str. angle 5.64 58.14 □"

STRINGER PLATE 84 1/2" × .62 TO .36 AT ENDS BEYOND HATCHWAYS.
QUAD. RIV. BUTTS TO BE CLEAR OF HATCHWAYS.
12" × 3 1/2" × .44 B.A.
WOOD BEAM AT CENTRE OF HATCHES.
3 1/2" × 3 1/2" × .60 O.A.
9" × 3 1/2" × .60 B.A.
FORE & AFTER IN WAY OF HATCHES.
FITTED AT ℄ & 7'-3 1/2" P&S OF ℄ TO HEEL OF BAR
5" × 5" × .60" TO 3 1/2 × 3 1/2 × .36 AT ENDS.
5" × 3" × .42" O.A.
5" × 3" × .35 O.A.
21" × 21" × .42.
18" × 12"
3" × 5" × .50 O.A.
.35 BKT AT CENTRE OF HATCHWAYS.
7.18 × .46 = 3.3
6.0 × .56 = 3.36
.85 D.
No 2 Hold
SHEERSTRAKE 72" × .56 FOR 1/2 L 5'-0" TO .36.
BUTTS LAPPED & TREBLE RIV. FOR 1/2 L TO DOUBLE AT ENDS.
4 1/2"
14'-0" DRAFT.
.56
3'-5" FREEBOARD
.41 Sides & Bottom
.025
.003
.438 .44
18'
NF = 2.0 (7.2 + 8 × 7 / 100) .41
.56
7.76
= 15.5 × L / 300 = 13
SHELL .44 TO .38
BUTTS LAPPED & TREBLE RIV. FOR 1/2 L TO DOUBLE AT ENDS.
4 1/2"
BOSS PLATE .52
10 3/4" CAMBER.
5" × 5" × .35 O.A.
36"
10" DIA.
5" × 3" × .35 O.A.
STRONG BEAMS. .35 PLATE.
18" × 12"
HOLE FOR PASSAGE OF STEAM & EXHAUST PIPES
7'-3 1/2" FROM ℄ TO HEEL
14'-7" FROM ℄ TO HEEL
BKT BETWEEN BAR & PLATE
6'-0"
.42
5" FLANGE
14'-0" Draught
4'-0"
18"
5'-3"
4'-6"
4 1/2"
4'LAP ON TO FRAME
3/4 RIVS. AT FULL REEL
3 1/2" FLANGE
2 1/2 × 2 1/2" × .30
21" × .38 CONTINUOUS W.T. PLATE.
5 × 5 × .40 · .46 BS.
3/4 RIVS.
6" DIA
5" × 3" × .30
2'-9"
9" DIA.
2 1/2" × 3 1/2" × .30 SINGLE
.38 BKT AT EVERY FRAME
BILGE STRAKE .44
Bilge Tk. Frames N = 2 × 14 = 28 C = 6 } 5 1/2 × 3 × .3 BA
STIFFENERS BETWEEN FLOORS 6" × 3" × .32 B.As. .42 IN B.S.
SPACED 2'-0" APART. BARS SET DOWN IN WAY OF BUTTS. Bracketed 18" at ends
3" × 3" × .3 DOUBLE .42 IN B. SPACE DOUBLE .36 IN E.S.
30" × 14"
3 × 3 × .30 SINGLE .36 IN E.S. .42 IN B.S.
2 1/2" × 2 1/2" × .30 .36 E & B
3" HOLES
SOLID FLOORS EVERY 3RD FRAME (SEE PROFILE)
3" × 3" × .30" SINGLE .36 IN E.S.
FLOORS .30 IN HOLDS .36 UNDER BOILERS .42 B.R.B.S.
5" × 5" × .40 DOUBLE AT STG BMS
5" × 3" × .30 .36 B.S. DOUBLE AT STRONG BEAMS.
6"
3 1/2 × 3 1/2 × .40
3" RISE OF FLOOR.
STRINGER PLATE 84" × .54 TO .36"
BUTTS TREBLE RIVETED.
RAISED QR DECK PLTG. .25
5 × 5" × .60 ANGLE
BEAMS 5 × 3" × .30" O.A. ON EVERY FRAME
5 × 3 × .42 at Hatchway ends
.42
SHEERSTRAKE 54" × .44 TO .36" (.56 AT BREAK) BUTTS TREBLE TO DOUBLE RIVETED.
4'-0"
8 × 3" × .36 B.A. FRAME
3" 3" LUG TO SHELL
STRINGER PLATE 18" × .40 THK.
5" FLANGE
2 1/2" SEAM AFT OF BUTT BETWEEN 44 & 45 FRS.
.40
18"
LUG TO SHELL
6" SEAM FORD OF BUTT BETN 44-45 FRS.
15" × 4" × 4" × .48/.62 CH. FITTED THROUGHOUT No 1 HOLD.
6'-0"
8" × 3" × .36 B.A. WITH 6" × 3" × .40 O.A. FRAMES 98-118.
6" × 3" × .50
12" × 3 1/2" × .50 FRAMES 98-119
8" × 3" × .36 B.A. WITH 6" × 6" × .70 REV. BAR AT STRONG BEAMS IN NOS 1 & 2 HOLDS. FORMING 9" GIRDER.
4 1/2"

SECTION IN WAY OF RAISED QUARTERDECK.

SECTION IN WAY OF STRINGERS.

FRAME SPACING:- A.P.-108 = 24" APART.
108 - 119 = 20" "
119 - 130 = 18" "

(.4 × 18) 72

Frame M = 2 × 13.25² × 8 × .01 = 28.1
K = 0 } 8 × 3 × .36 BA

FRAMES IN AFT PEAK. 6 × 3" × .36 B.As.
" " ENGINE ROOM 8" × 3 × .36 B.As.
" " BOILER ROOM 8 × 3" × .42 B.As.
" " No 2 HOLD 8" × 3 × .36 B.As.
" " No 1 HOLD 9" × 3" × .38 B.As. (FRMS 75-97)
" " WAY OF DEEP BEAMS TO HAVE 8" × 3" × .36 B.A. WITH 6" × 6" × .70 REV. BAR FORMING 9" GIRDER.
" " FORE PEAK 6" × 3" × .36 B.A. TO UPPER DK.
" " FORECASTLE 5" × 3" × .30 O.A. KNEED TO UPPER DK.
" " No 1 HOLD (FRMS 98-118) 8" × 3 × .36 B.A'S. WITH 6" × 3" × .40 REV. BAR ON EVERY FRAME. FORMING 9" GIRDER. (SEE SECTION.)

Stiffr N = 2 × 8.5 × .66 × [illegible] = 11.2
C = 16 } 8 × 3 × .36 BA

F.P. M = 1.5 × 7² × 20 × .01 = 14.7
K = 1.5 × 16 × .25 × 43.3 × .01 = 2.6 } 6 × 3 × .36 BA

FORECASTLE :-
BEAMS 7 1/2" × 3" × .40 B.A. ON ALT. FRS.
DECK PLATING .30
SIDE PLATING .32
BEAM KNEES 21" × .40 5 - 3/4" RIVS.
SEE PROFILE FOR BEAMS AT ENDS.

UPPER DK PLATING .25 BETWEEN HATCHES & AT ENDS.
BUTTS OVERLAPPED & SINGLE RIV. AT ENDS.
SEAMS SINGLE RIV.

UPPER DK THRO' BEAMS 5" × 3" × .30 O.A. 5 × 3 × .42 at Hatchway ends.
" HALF BEAMS 5" × 3" × .30 O.A.
BEAMS ABREAST MACHY SPACE & AFT 6" × 3" × .36 O.A.
" FORD SEE PROFILE.

Web Frames W = 2 × 14 × 10 × .03 = 8.4 × 2/3 = 5.6
C = 14 } 9"

K/W = 24 × 6.0 × 21.66 × .01 = 31.2 / 8 = 4

13" = 16.6 × 1/24

Offered 4 / 19 / 23.

STEM BAR 7" × 2"
PROPELLER POST 7 3/8" × 5 1/8"
RUDDER HEAD 7" DIA.
RUDDER PLATE .87"

Air holes punched in heel of frames & beams about 3'-0" apart see letter 12/9/27

MARGIN PLATE .40 .46 IN B. SPACE.
DOUBLE RIV. OVERLAPPED BUTTS.

CENTRE GIRDER 36" × .40 TO .34 AT ENDS. .40 E. & B.S.
BUTTS OVERLAPPED & DOUBLE RIV.
TOP BAR 3" × 3" × .40 TO .34 SINGLE. .48 IN B.S.
BOTTOM BAR 3 1/2 × 3 1/2 × .46 SINGLE
3 1/2" × 3 1/2" × .36 DOUBLE IN E. SPACE & FORD OF 1/2 L

TANK TOP PLATING .48 IN HOLDS.
" " " .48 IN B. SPACE.
" " " .40 IN E. SPACE.
FLUSH BUTTS SINGLE RIV. IN HOLDS.
" SEAMS " " "

TANK KNEES .36, .42 IN B.S.
.42 AT STRONG BEAMS.

BOTTOM PLATING .44 TO .38 AFT, .44 FORD
BUTTS LAPPED & TREBLE RIV. FOR 1/2 L TO DOUBLE AT ENDS.

KEEL PLATE 42" × .60 TO .52 FORD
TREBLE RIV. OVERLAP BUTTS.

[illegible] HUNTER & WIGHAM RICHARDSON, LTD. SHIPBUILDERS & ENGINEERS
DATE 7-9-27
PLAN No. 5

004512-004519-0208

H

Sternframe

Swan Hunter & W.R.

Nos 1329-31-3-5-7.

9-9-27.

1329. Cartierdoc. × + *
1331. Lavaldoc.
1333. Mondoc.
1335 "Soreldoc".
1337 Troisdoc.
1345 Novadoc.
1347. Newbrundoc.
1282. Tyneville now "JOHN J. BOLAND. JUN."
1290. Scott Misener.
1365. Delaware
1367. Cheyenne
1369. John A McKellar
1371. D A Howson
1373. Ralph Gilchrist
1375 Joseph L Burke

Bag

004512-004519-0202

Nos 1329-1331-1333-1335

STERNFRAME.

OF FORGED STEEL TO PASS BRITISH CORPT TESTS.

FOR SERVICE ON THE GREAT LAKES & RIVER ST. LAWRENCE.

SCALE ½" = 1FT

8 SEP. 1.27

BRITISH CORPORATION REGISTER OF SHIPPING AND AIRCRAFT GLASGOW

Approved [illegible] See letter 9.9.27

DIMENSIONS GIVEN ARE TO BE CAREFULLY WORKED TO, & NOT EXCEEDED, AS WE ONLY PAY ON WEIGHTS CALCULATED TO THESE DIMENSIONS.

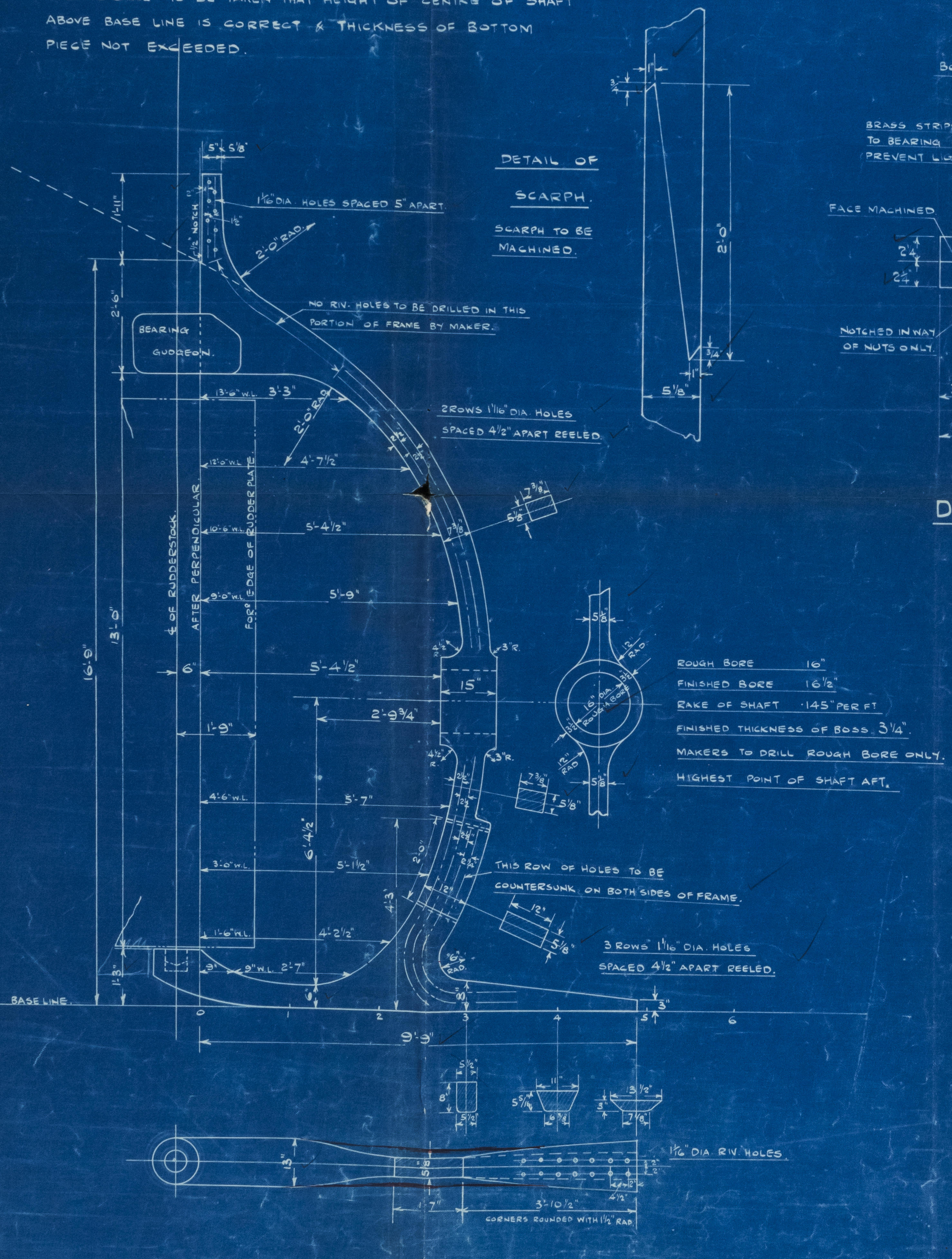
FRAME NOT TO BE PAINTED BUT TO HAVE A COAT OF OIL.

CENTRE LINE OF BEARING GUDGEON & BOTTOM GUDGEON TO BE IN A STRAIGHT LINE & SQUARE TO BASE LINE.

WEIGHT OF FRAME TO BE PAINTED ON BEFORE DESPATCH.

ALL DRILLING & MACHINING TO BE DONE BY MAKERS.

SPECIAL CARE TO BE TAKEN THAT HEIGHT OF CENTRE OF SHAFT ABOVE BASE LINE IS CORRECT & THICKNESS OF BOTTOM PIECE NOT EXCEEDED.

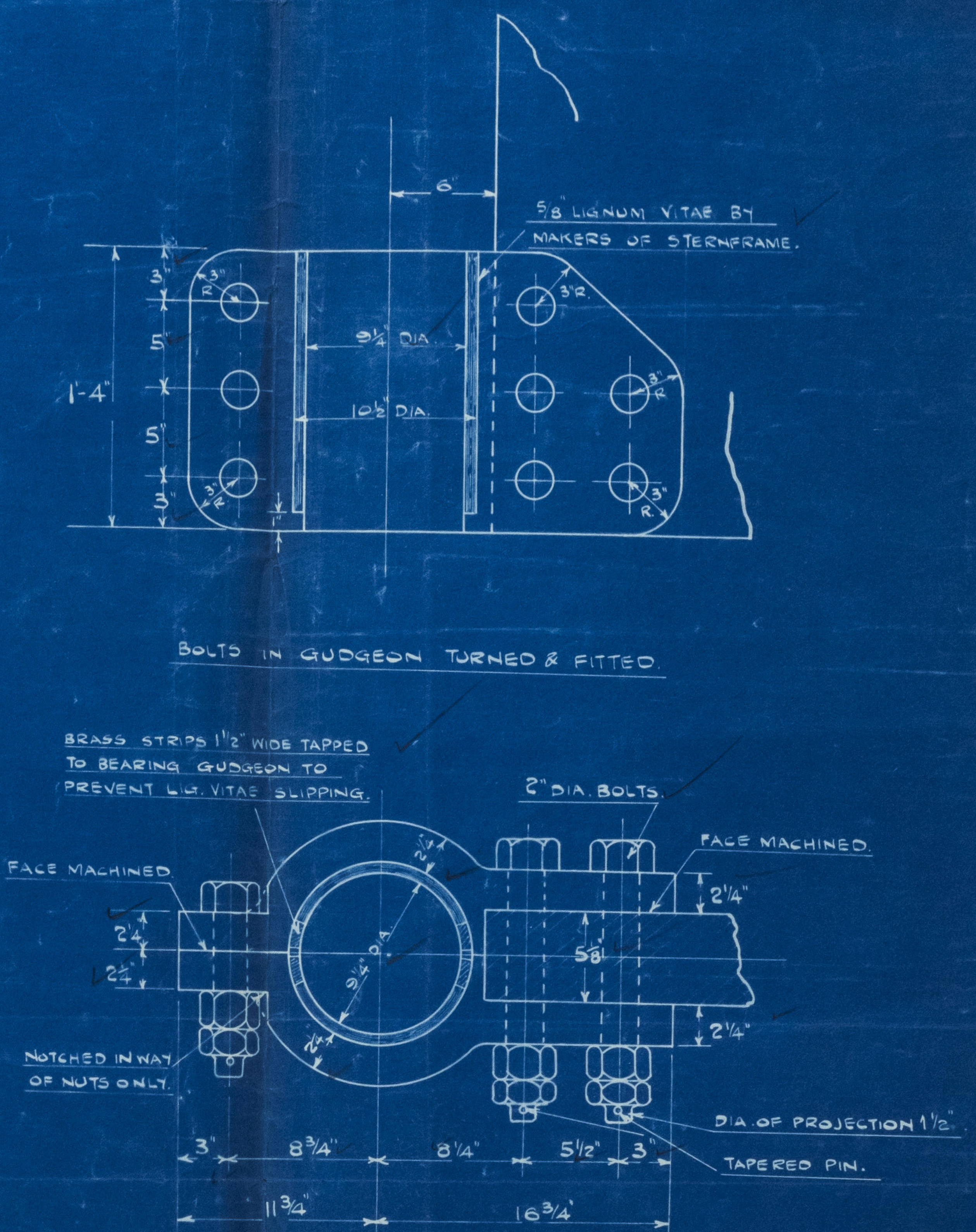

5" x 5⅛"
1'-11"
1½" NOTCH
2"
1½"
1⅛" DIA. HOLES SPACED 5" APART.
2'-0" RAD.
2'-6"
BEARING GUDGEON.
NO RIV. HOLES TO BE DRILLED IN THIS PORTION OF FRAME BY MAKER.
13'-6" W.L.
3'-3"
2'-0" RAD.
2 ROWS 1⅛" DIA. HOLES SPACED 4½" APART REELED.
12'-0" W.L.
4'-7½"
2½"
7⅜"
5⅛"
10'-6" W.L.
5'-4½"
℄ OF RUDDERSTOCK.
AFTER PERPENDICULAR.
FORD EDGE OF RUDDER PLATE.
9'-0" W.L.
5'-9"
16'-0"
13'-0"
4½" R.
3" R.
6"
5'-4½"
15"
2'-9¾"
1'-9"
5⅛"
12" RAD.
16" DIA. ROUGH BORE
3½"
4'-6" W.L.
5'-7"
6'-4½"
3'-0" W.L.
5'-1½"
2'-0"
4'-3"
12"
THIS ROW OF HOLES TO BE COUNTERSUNK ON BOTH SIDES OF FRAME.
1'-6" W.L.
4'-2½"
9"
9" W.L. 2'-7"
6" RAD.
3 ROWS 1⅛" DIA. HOLES SPACED 4½" APART REELED.
1'-3"
BASE LINE.
8"
3"
0
1
2
3
4
5
6
9'-9"
5½"
8"
11"
5 5/16"
6⅜"
13½"
3"
7⅛"
13"
1⅛" DIA. RIV. HOLES.
2"
4½"
1'-7"
3'-10½"
CORNERS ROUNDED WITH 1½" RAD.

DETAIL OF SCARPH.

SCARPH TO BE MACHINED.

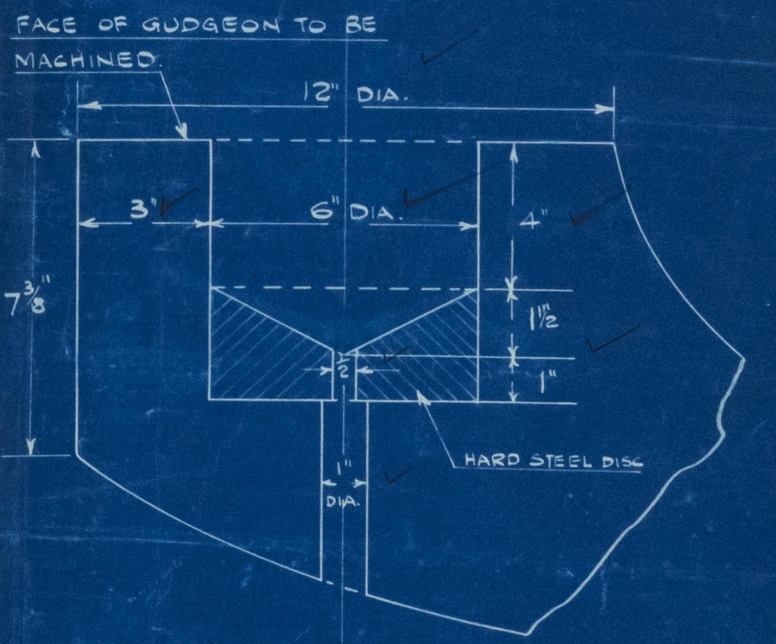
1"
3/4"
2'-0"
5⅛"

ROUGH BORE 16"
FINISHED BORE 16½"
RAKE OF SHAFT ·145" PER FT
FINISHED THICKNESS OF BOSS 3¼".
MAKERS TO DRILL ROUGH BORE ONLY.
HIGHEST POINT OF SHAFT AFT.


6"
⅝ LIGNUM VITAE BY MAKERS OF STERNFRAME.
3"
3" R
5"
1'-4"
5"
3"
9¼" DIA.
10½" DIA.
3" R.
1"
BOLTS IN GUDGEON TURNED & FITTED.
BRASS STRIPS 1½" WIDE TAPPED TO BEARING GUDGEON TO PREVENT LIG. VITAE SLIPPING.
2" DIA. BOLTS.
FACE MACHINED.
FACE MACHINED.
2¼"
2¼"
9¼" DIA.
5⅛"
2¼"
2¼"
NOTCHED IN WAY OF NUTS ONLY.
DIA. OF PROJECTION 1½".
TAPERED PIN.
3"
8¾"
8¼"
5½"
3"
11¾"
16¾"

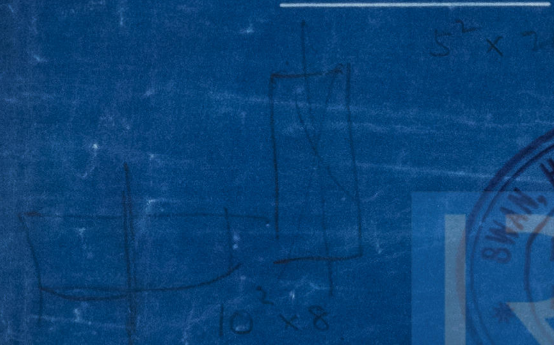
DETAIL OF BEARING GUDGEON.

SCALE 1½" = 1FT


FACE OF GUDGEON TO BE MACHINED.
12" DIA.
3"
6" DIA.
4"
7⅜"
1½"
1"
2
1" DIA.
HARD STEEL DISC

DETAIL OF BOTTOM GUDGEON.

SCALE 3" = 1FT


5² x 20
500
10² x 8
80

SWAN, HUNTER, & WIGHAM RICHARDSON, LTD
SHIPBUILDERS & ENGINEERS
DATE 7-9-27
PLAN No. 3
WALLSEND SHIPYARD
WALLSEND-ON-TYNE

00452-00419-0202

3

Rudder

Swan Hunter & W.R.

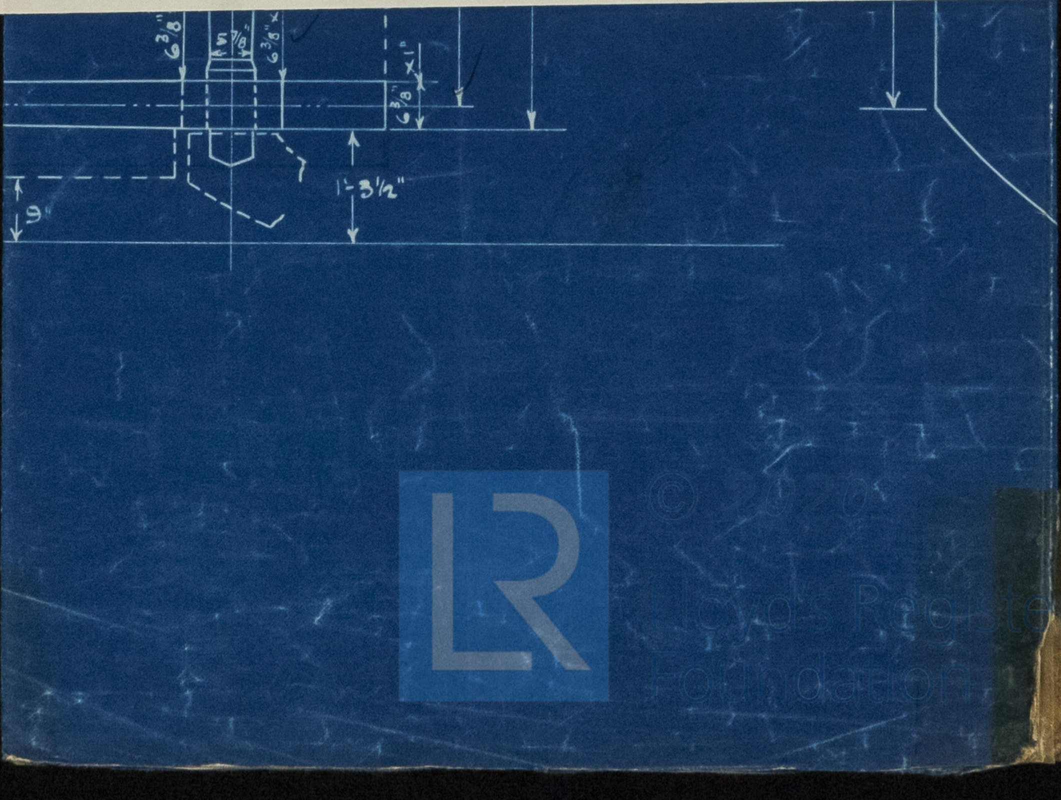
Nos 1329-31-3-5-7.

9-9-27

1329. Cartierdoc. - X X +
1331 Lavaldoc.
1333 Mondoc.
1335 "Soreldoc"
1337 Troisdoc
1345 Movadoc.
1347. Newbrundoc.
1282 Tyneville now "JOHN J. BOLAND. JUN"
1290. Scott Misener.
1365 Delaware
1367. Cheyenne
1369. John A McKellar
1371. J. H. Houzen
1373 Ralph Gilchrist
1375. Joseph P. Burke

Bag.

004512-004519-0203


6⅜"
6⅜"×
6⅜"×1"
1'-3½"
9"

SEP. 1927

BRITISH CORPORATION REGISTER OF SHIPPING AND AIRCRAFT. GLASGOW

Nos 1329-1331-1333-1335

RUDDERFRAME.

Approved See Letter 9.9.27

TO CLASS B.S* FOR SERVICE ON GREAT LAKES & RIVER St LAWRENCE.

RUDDER FRAME OF FORGED STEEL TO PASS TESTS OF BRITISH CORPORATION.

SCALE ½" = 1 FT

AREA ABAFT ℄ OF STOCK = 75·08 ◻' AREA FORD ℄ OF STOCK = 21·73 ◻'

21·73
76·81

C.G. ABAFT ℄ OF STOCK = 1·99 FT. C.G. ABOVE BASE LINE = 7·61 FT

SPEED = 8 KNOTS ✓

NOTES.–

DIMENSIONS GIVEN ARE TO BE CAREFULLY WORKED TO & NOT EXCEED AS WE ONLY PAY ON WEIGHTS CALCULATED TO THESE DIMENSIONS.

ALL MACHINING AND DRILLING TO BE DONE BY MAKERS.

FRAME NOT TO BE PAINTED BUT TO HAVE A COAT OF OIL.

CENTRE LINE OF MAINPIECE TO BE SQUARE TO BASE LINE.

WEIGHT OF FRAME TO BE PAINTED ON BEFORE DESPATCH.

5/16" BRASS LINER TO BE CAST & GROOVED ON. GROOVES TO BE 5/8" WIDE & 1/8" DEEP.

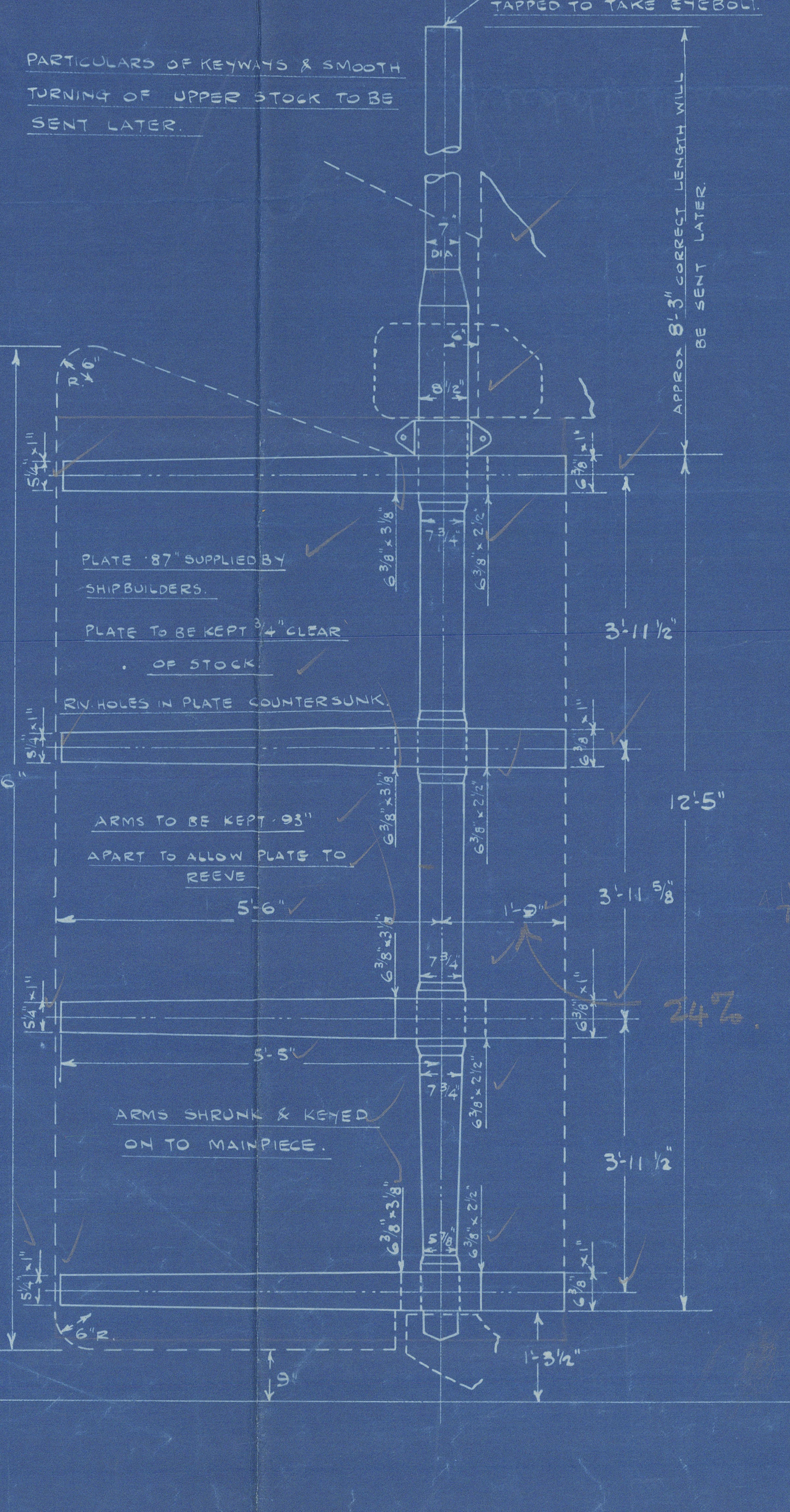
STOCK TO BE INCREASED 3/4" IN DIA. IN WAY OF ARMS, THE INCREASE TO BE UNIFORM & EXTEND ABOVE & BELOW EACH ARM, EXCEPT THE BOTTOM OF THE LOWER ARM, FOR A DISTANCE OF 1½" & THEN TAPERED OVER A SIMILAR DISTANCE INTO THE NORMAL DIA. ✓ ✓

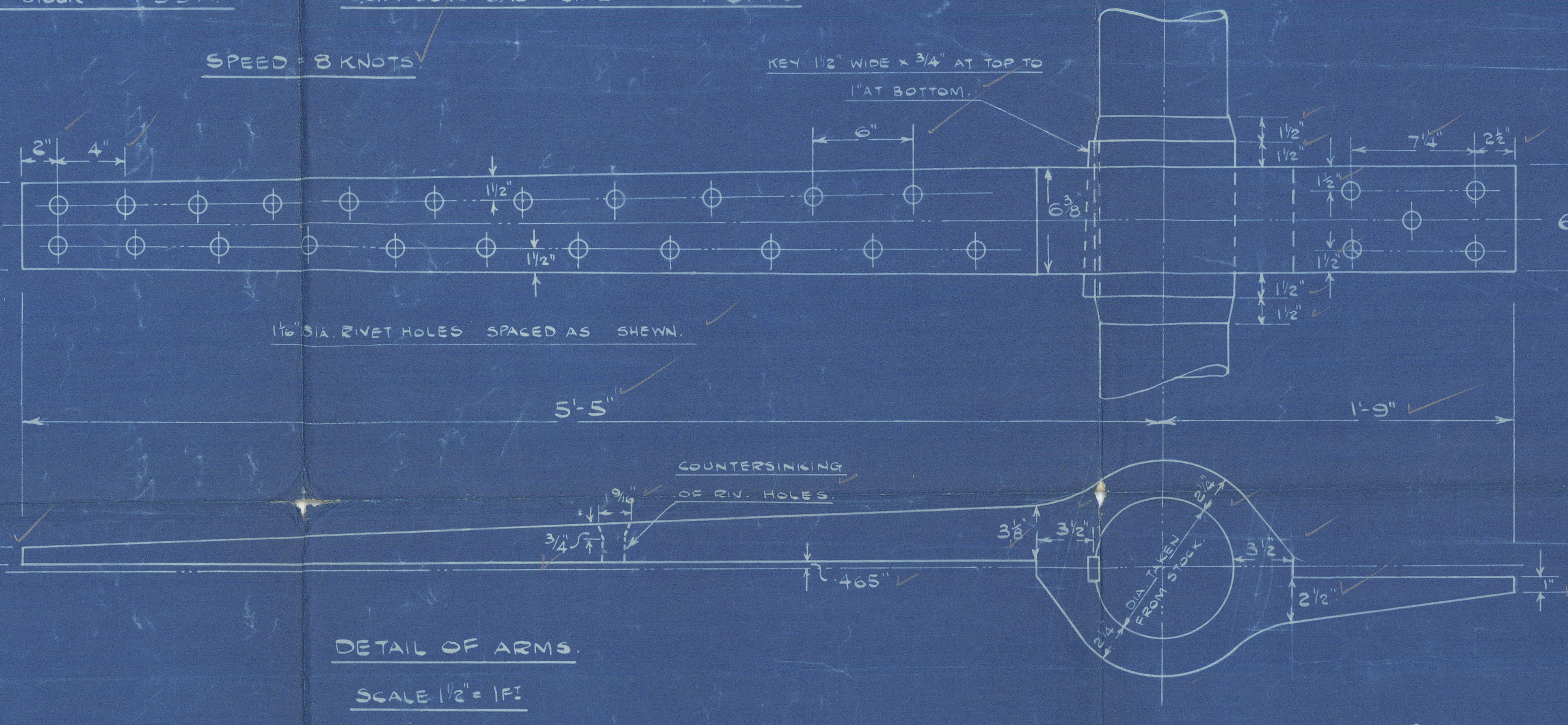
$\frac{6 \cdot 6 \times 100}{35} = \frac{18 \cdot 9 \times 12 \cdot 75}{16} = 15$ ft tons.

$\frac{\pi \times 7 \cdot 75^3}{64} = 22 \cdot 9$ ft tons.

$\cdot 84 - \cdot 18 = \cdot 66 \sqrt{\frac{30}{55}} = \cdot 49 + \cdot 18 = \cdot 67$

$\cdot 66 \sqrt{\frac{38}{55}} = \cdot 57 + \cdot 18 = \cdot 75$


1" DIA. HOLE 3" DEEP TAPPED TO TAKE EYEBOLT.
PARTICULARS OF KEYWAYS & SMOOTH TURNING OF UPPER STOCK TO BE SENT LATER.
APPROX 8'-3" CORRECT LENGTH WILL BE SENT LATER
7" DIA.
6"
8½"
R 6"
5¼" × 1"
6⅜" × 1"
6⅜" × 3⅛"
6⅜" × 2½"
7¾"
PLATE ·87" SUPPLIED BY SHIPBUILDERS.
PLATE TO BE KEPT ¾" CLEAR OF STOCK.
RIV. HOLES IN PLATE COUNTERSUNK.
3'-11½"
14'-6"
12'-5"
ARMS TO BE KEPT ·93" APART TO ALLOW PLATE TO REEVE
3'-11⅝"
5'-6"
1'-9"
7'-3
24%.
5'-5"
ARMS SHRUNK & KEYED ON TO MAINPIECE.
3'-11½"
5⅞"
6"R.
1'-3½"
9"
BASE LINE.

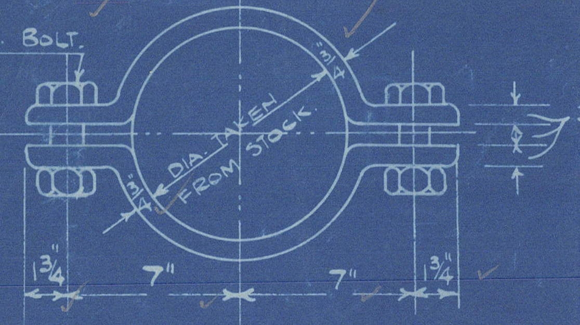

KEY 1½" WIDE × ¾" AT TOP TO 1" AT BOTTOM.
2"
4"
6"
1½"
5¼"
6⅜"
7¼"
2½"
1⅛" DIA. RIVET HOLES SPACED AS SHEWN.
5'-5"
1'-9"
COUNTERSINKING OF RIV. HOLES.
9/16"
¾"
1"
3⅜"
3½"
DIA. TAKEN FROM STOCK.
2¼"
2½"
·465"

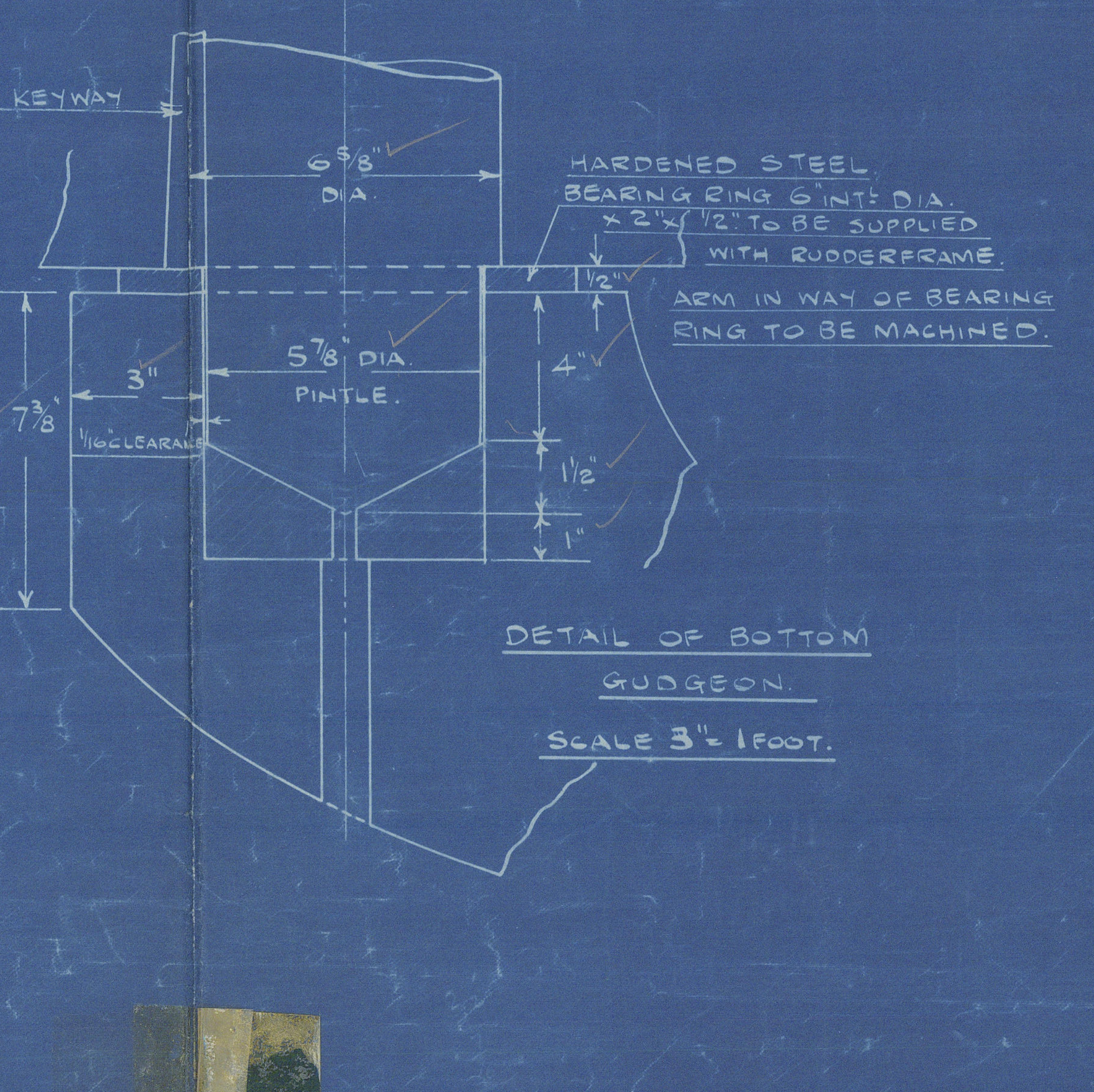
DETAIL OF ARMS.

SCALE 1½" = 1 FT

DETAIL OF RING TO PREVENT LIFTING.

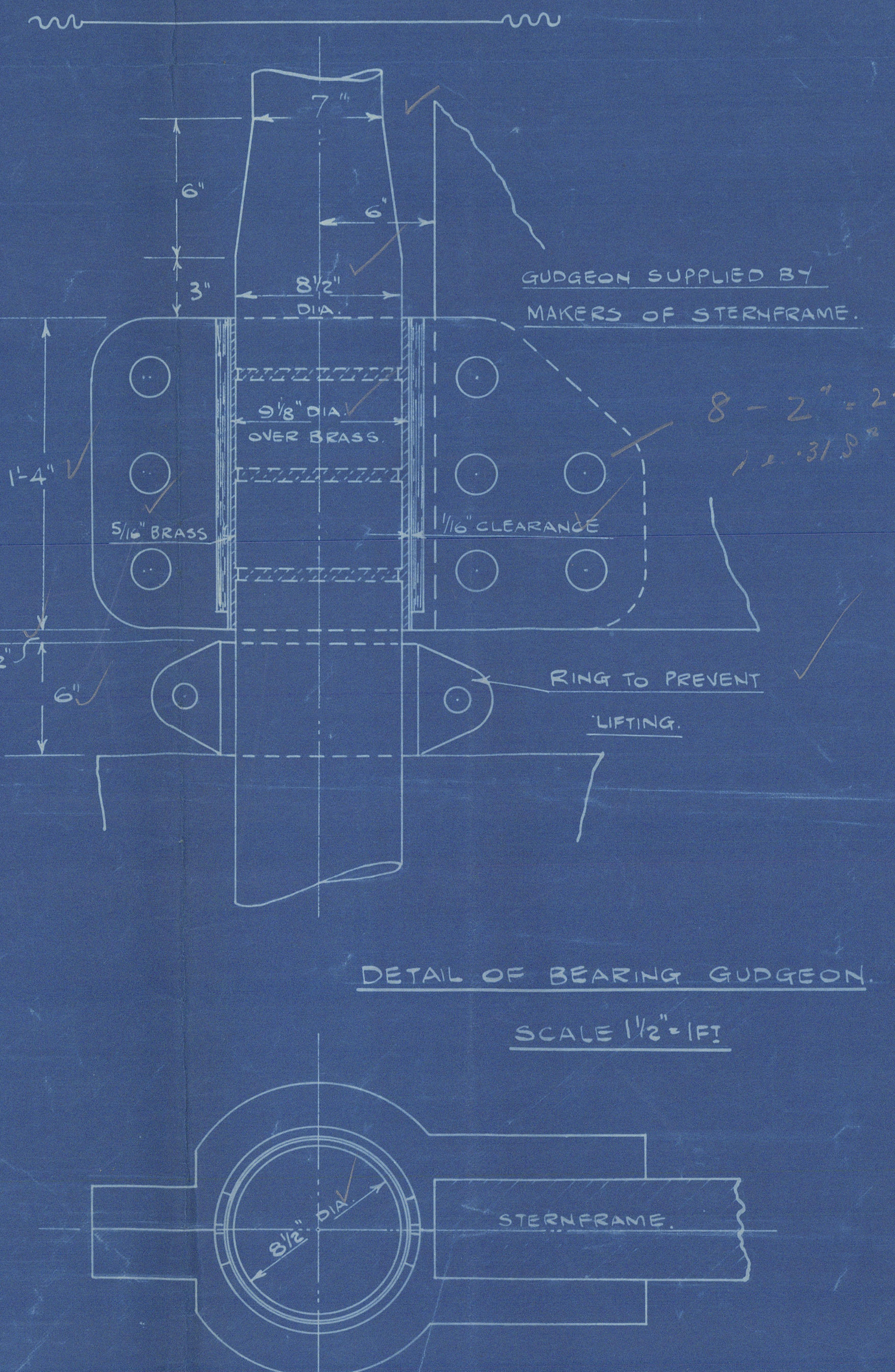
SCALE 1½" = 1 FOOT.


1¼" DIA. BOLT.
DIA. TAKEN FROM STOCK.
¾"
1¾"
7"
7"
1¾"


KEYWAY
6⅝" DIA.
HARDENED STEEL BEARING RING 6" INTL DIA. × 2" × ½" TO BE SUPPLIED WITH RUDDERFRAME.
½"
ARM IN WAY OF BEARING RING TO BE MACHINED.
3"
5⅞" DIA. PINTLE.
1/16" CLEARANCE
7⅜"
4"
1½"
1"

DETAIL OF BOTTOM GUDGEON.

SCALE 3" = 1 FOOT.


7"
6"
6"
3"
8½" DIA.
GUDGEON SUPPLIED BY MAKERS OF STERNFRAME.
9⅛" DIA. OVER BRASS.
1'-4"
5/16" BRASS
1/16" CLEARANCE
8 - 2" = 2·311" = ·318"
½"
6"
RING TO PREVENT LIFTING.
8½" DIA.
STERNFRAME.

DETAIL OF BEARING GUDGEON.

SCALE 1½" = 1 FT

E.W.
G.A.S.

SWAN, HUNTER & WIGHAM RICHARDSON LTD SHIPBUILDERS & ENGINEERS
DATE 7-9-27
PLAN No. 4